



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: December 28, 2011

RE: Kamic Corporation / 005-31197-00082

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot12/3/07



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Ray Quiroz
Kamic Corporation
6345 S Inwood Dr.
Columbus, IN, 47201

December 28, 2011

Re: Exempt Construction and Operation Status,
005-31197-00082

Dear Mr. Quiroz:

The application from Kamic Corporation, received on December 1, 2011, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following stationary metal automotive parts manufacturing plant located at 6345 South Inwood Drive, Columbus IN 47201 is classified as exempt from air pollution permit requirements:

- (a) Machining/metal fabrication, constructed in 1996, except as noted below, capable of processing a maximum throughput of 3,350 pounds of metal per hour. This operation consists of the following:
 - (1) two (2) cutting machines, identified as 2 Tsune TK5C-100GL;
 - (2) five (5) lathes identified as Mori-Seki DL-15-03, DL-15-06, DL-15-05, DL-15-07, DL-15-08, constructed in 1997, each with a maximum cutting oil usage rate of 0.04 gallons per hour;
 - (3) five (5) lathes, identified as Muratec MW120 -9, -10, -11, -12, and -13 constructed in 2000, each with a maximum cutting oil usage rate of 0.04 gallons per hour;
 - (4) Two (2) CNC lathes, identified as Nomura (2) NN20 -1 and -2, constructed in 2006, with a combined maximum throughput of 723 pounds of metal per hour, each with a maximum cutting oil usage rate of 0.04 gallons per hour
 - (5) five (5) burnishing machines, each identified as a KJK Ball Burnisher;
 - (6) five (5) centerless grinders, identified as G1-Model MD600 III, G2-Model MD600, G3-Model MSL600, G4-Model MPC600, and G5-Micron150, constructed in 2005; and
 - (7) two (2) finishing operations, each with metal coating lines for rust prevention;
- (b) Natural gas-fired HVAC units, with a combined heat input rate of 2.5 MMBtu per hour;
- (c) One (1) parts washer, constructed in 1997, with one (1) 1.06 MMBtu per hour natural gas-fired furnace;
- (d) One (1) parts washer, constructed in 2011, with one (1) 1.06 MMBtu per hour natural gas-fired furnace;

- (e) Two (2) electric endothermic gas generators, each producing endogas, which is used in the electric carburizing furnaces to treat metal parts, identified as follows:
 - (1) One (1) electric endothermic gas generator, constructed in 1997, identified as Endothermic Gas Generator #1, rated at 20 kW, producing 38 cubic meters per hour of endogas;
 - (2) One (1) electric endothermic gas generator, constructed in 2007, identified as Endothermic Gas Generator #2, rated at 50 kW, producing 72 cubic meters per hour of endogas.

- (f) Electric furnaces:
 - (1) One (1) electric tempering furnace, constructed in 1996, identified as TF-1, rated at 90 kW;
 - (2) Three (3) electric tempering furnaces, constructed in 2002, each rated at 90kw, identified as TF-02, TF-03, and TF-04, venting to stacks ST-02, ST-03 and ST-04, respectively;
 - (3) Two (2) electric carburizing furnaces, constructed in 1996, each rated at 145 kW;
 - (4) Four (4) electric carburizing furnaces, constructed in 2002, each rated at 145 kW, identified as CF-03, CF-04, CF-05, and CF-06, venting to stacks SF-03, SF-04, SF-05, and SF-06, respectively;
 - (5) One (1) electric carburizing furnace, identified as CF-07, constructed in 2006, rated at 145 kW, venting to SF-07;
 - (6) One (1) electric carburizing furnace, identified as CF-08, constructed in 2011, rated at 145 kW;
 - (7) Two (2) electric induction hardening furnaces, constructed in 2002, each rated at 100 kW, identified as IH-1 and IH-2, venting to stack IH-1 and IH-2, respectively.

The following conditions shall be applicable:

1. 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

2. 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

3. 326 IAC 8-3-2 (Cold cleaner operation)
Pursuant to 326 IAC 8-3-2 the Permittee shall:
 - (a) Equip the cleaner with a cover;
 - (b) Equip the cleaner with a facility for draining cleaned parts;
 - (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
 - (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (e) Provide a permanent, conspicuous label summarizing the operation requirements;
 - (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

4. 326 IAC 8-3-5 (Organic Solvent Degreasing Operations)
 - (a) The owner or operator of the cold cleaner degreaser shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) the solvent is agitated; or
 - (C) the solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

- (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

This exemption supersedes Registration No. 005-24719-00082, issued on July 23, 2007. A copy of the Exemption is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. If you have any questions on this matter, please contact Sarah Street, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-232-8427 or at 1-800-451-6027 (ext 2-8427).

Sincerely,



Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

IC/ss

Attachments: Technical Support Document
Appendix A - Emissions Calculations

cc: File - Bartholomew County
Bartholomew County Health Department
Compliance and Enforcement Branch
Billing, Licensing and Training Section

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration Transitioning to an Exemption

Source Description and Location

Source Name:	Kamic Corporation
Source Location:	6345 South Inwood Drive, Columbus IN 47201
County:	Bartholomew
SIC Code:	3714 (Motor Vehicles Parts and Accessories)
Exemption No.:	005-31197-00082
Permit Reviewer:	Sarah Street

On December 1, 2011, the Office of Air Quality (OAQ) received an application from Kamic Corporation related to the transition of a Registration to an Exemption of an existing metal automotive parts manufacturing plant, due to the evaluation of the potential to emit of existing electric furnaces.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Registration No. 005-24719-00082, issued on July 23, 2007.
- (b) Registration Notice-Only Change No. 005-25582-00082, issued on December 26, 2007.

Due to this application, the source is transitioning from a Registration to an Exemption.

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM _{2.5} .	

- (a) **Ozone Standards**
 Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Bartholomew County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM_{2.5}**
Bartholomew County has been classified as attainment for PM_{2.5}. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct PM_{2.5} significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct PM_{2.5} and SO₂ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (c) **Other Criteria Pollutants**
Bartholomew County has been classified as attainment or unclassifiable in Indiana for SO₂, CO, PM₁₀, NO₂, and Pb. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The fugitive emissions of criteria pollutants, hazardous air pollutants, and greenhouse gases are counted toward the determination of 326 IAC 2-1.1-3 (Exemptions) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Kamic Corporation on December 1, 2011, relating to the amendment of the equipment list in Registration No. 005-25582-00082. Several unit descriptions needed to be amended and potential to emit (PTE) calculations needed to be updated. Several units (including 14 furnaces) previously thought to combust natural gas are actually electrically-run and therefore do not have emissions from natural gas combustion, as previously calculated under Registration No. 005-25582-00082. The source also constructed one (1) electric carburizing furnace and one (1) parts washer in 2011.

The source consists of the following existing emission units:

- (a) Machining/metal fabrication, constructed in 1996, except as noted below, capable of processing a maximum throughput of 3,350 pounds of metal per hour. This operation consists of the following:
- (1) two (2) cutting machines, identified as 2 Tsune TK5C-100GL;
 - (2) five (5) lathes identified as Mori-Seki DL-15-03, DL-15-06, DL-15-05, DL-15-07, DL-15-08, constructed in 1997, each with a maximum cutting oil usage rate of 0.04 gallons per hour;
 - (3) five (5) lathes, identified as Muratec MW120 -9, -10, -11, -12, and -13 constructed in 2000, each with a maximum cutting oil usage rate of 0.04 gallons per hour;
 - (4) Two (2) CNC lathes, identified as Nomura (2) NN20 -1 and -2, constructed in 2006, with a combined maximum throughput of 723 pounds of metal per hour, each with a maximum cutting oil usage rate of 0.04 gallons per hour
 - (5) five (5) burnishing machines, each identified as a KJK Ball Burnisher;
 - (6) five (5) centerless grinders, identified as G1-Model MD600 III, G2-Model MD600, G3-Model MSL600, G4-Model MPC600, and G5-Micron150, constructed in 2005; and
 - (7) two (2) finishing operations, each with metal coating lines for rust prevention;
- (b) Natural gas-fired HVAC units, with a combined heat input rate of 2.5 MMBtu per hour;

- (c) One (1) parts washer, constructed in 1997, with one (1) 1.06 MMBtu per hour natural gas-fired furnace;
- (d) One (1) parts washer, constructed in 2011, with one (1) 1.06 MMBtu per hour natural gas-fired furnace;
- (e) Two (2) electric endothermic gas generators, each producing endogas, which is used in the electric carburizing furnaces to treat metal parts, identified as follows:
 - (1) One (1) electric endothermic gas generator, constructed in 1997, identified as Endothermic Gas Generator #1, rated at 20 kW, producing 38 cubic meters per hour of endogas;
 - (2) One (1) electric endothermic gas generator, constructed in 2007, identified as Endothermic Gas Generator #2, rated at 50 kW, producing 72 cubic meters per hour of endogas.
- (f) Electric furnaces:
 - (1) One (1) electric tempering furnace, constructed in 1996, identified as TF-1, rated at 90 kW;
 - (2) Three (3) electric tempering furnaces, constructed in 2002, each rated at 90kw, identified as TF-02, TF-03, and TF-04, venting to stacks ST-02, ST-03 and ST-04, respectively;
 - (3) Two (2) electric carburizing furnaces, constructed in 1996, each rated at 145 kW;
 - (4) Four (4) electric carburizing furnaces, constructed in 2002, each rated at 145 kW, identified as CF-03, CF-04, CF-05, and CF-06, venting to stacks SF-03, SF-04, SF-05, and SF-06, respectively;
 - (5) One (1) electric carburizing furnace, identified as CF-07, constructed in 2006, rated at 145 kW, venting to SF-07;
 - (6) One (1) electric carburizing furnace, identified as CF-08, constructed in 2011, rated at 145 kW;
 - (7) Two (2) electric induction hardening furnaces, constructed in 2002, each rated at 100 kW, identified as IH-1 and IH-2, venting to stack IH-1 and IH-2, respectively.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – Exemption

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)									
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Machining and Metal Fabrication	-	-	-	-	-	6.17	-	-	-	-
Parts Washers	-	-	-	-	-	0.45	-	-	-	-
Carburizing & Carbonitriding	-	-	-	-	0.002	0.003	5.35	-	-	-
Natural Gas Combustion	0.04	0.15	0.15	0.01	2.02	0.11	1.70	2,443	0.04	0.04 Hexane
Total PTE of Entire Source	0.04	0.15	0.15	0.01	2.03	6.74	7.05	2,443	0.04	0.04 Hexane
Exemptions Levels**	5	5	5	10	10	10	25	100,000	25	10
Registration Levels**	25	25	25	25	25	25	100	100,000	25	10

*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
 **The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of all regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3 (Exemptions).
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (b) The parts washing operating is not subject to the requirements of National Emission Standards for Hazardous Air Pollutants Halogenated Solvent Cleaning (40 CFR 63.460, Subpart T), because it does not use any halogenated solvents. Therefore, the requirements of this rule have not been included in the permit.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

- (d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) 326 IAC 2-1.1-3 (Exemptions)
Exemption applicability is discussed under the Permit Level Determination – Exemption section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (c) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 326 IAC 5-1 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (g) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Each of the emission units at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.

Machining and Metal Fabrication

- (h) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The machining/metal fabricating process at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.
- (i) 326 IAC 8-2-9 (Miscellaneous Metal Coating)
326 IAC 8-2-9 is not applicable to machining/metal fabricating process because the materials (Kut Eze, Yumate SC822K, Miller X-Rust) being applied in the machining/metal fabrication process are not coatings. They do not leave any film on the substrate. "Coating" means the application of protective, functional or decorative films. Rustcoat is the only coating used in the machining/metal fabrication. It is not subject to 326 IAC 8-2-9, because it does not have actual VOC emissions of 15 pounds per day or greater before add-on control.

Parts Washers

- (j) 326 IAC 8-3-2 (Cold cleaner operation)
Pursuant to 326 IAC 8-3-1(a)(2), the parts washer, is subject to the requirements of 326 IAC 8-3-2 (Cold cleaner operation) since it was constructed after January 1, 1980. Pursuant to 326 IAC 8-3-2 the Permittee shall:
 - (a) Equip the cleaner with a cover;
 - (b) Equip the cleaner with a facility for draining cleaned parts;
 - (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
 - (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (e) Provide a permanent, conspicuous label summarizing the operation requirements;
 - (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.
- (k) 326 IAC 8-3-5 (Organic Solvent Degreasing Operations)
Pursuant to 326 IAC 8-3-1(b)(2), 326 IAC 8-3-5 applies to the cold cleaner degreaser without remote solvent reservoir constructed after July 1, 1990 located any county.

"Cold cleaner degreaser" means a tank containing organic solvent at a temperature below the boiling point of the solvent which is used to spray, brush or immerse an article for the purpose of cleaning or degreasing the article.

Kamic Corporation parts washer/degreaser is maintained at 90°C, which is below 100°C, the boiling point of the solvent used. Therefore, it is a cold cleaner degreaser and is subject 326 IAC 8-3-5:

- (a) The owner or operator of the cold cleaner degreaser shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch)

measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

- (B) the solvent is agitated; or
 - (C) the solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
 - (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

326 IAC 8-3 is not applicable to the parts washer/degreaser when it is used to clean parts prior to heat treatment, because the liquid being used does not contain VOC.

Natural Gas Combustion

- (l) 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
The natural gas-fired units are not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), because, pursuant to 326 IAC 1-2-19, these emission units do not meet the definition of an indirect heating unit.
- (m) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The natural gas-fired units are exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.
- (n) 326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.
- (o) 326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on December 1, 2011.

The operation of this source shall be subject to the conditions of the attached proposed Exemption No. 005-31197-00082. The staff recommends to the Commissioner that this Exemption be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Sarah Street at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8427 or toll free at 1-800-451-6027 extension 2-8427.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

**Appendix A: Emission Calculations
Summary**

Company Name: Kamic Corporation
Address City IN Zip: 6345 South Inwood Drive, Columbus IN 47201
Permit Number: 005-31197-00082
Plt ID: 005-00082
Reviewer: Sarah Street
Date: #####

Process/ Emission Units	Unlimited Potential to Emit (tons/yr)									
	PM	PM10*	PM2.5	SO2	NOx	VOC	CO	Worst Single HAP	Total HAP	GHGs as CO2e
Machining and Metal Fabrication	-	-	-	-	-	6.17	-	-	-	-
Parts Washers	-	-	-	-	-	0.45	-	-	-	-
Carburizing & Carbonitriding	-	-	-	-	0.002	0.003	5.35	-	-	-
Natural Gas Combustion	0.04	0.15	0.15	0.01	2.02	0.11	1.70	0.04 Hexane	0.04	2,443
Total PTE	0.04	0.15	0.15	0.01	2.03	6.74	7.05	0.04 Hexane	0.04	2,443
Exemptions Levels**	5	5	5	10	10	10	25	10	25	100,000
Registration	25	25	25	25	25	25	100	10	25	100,000

Total emissions based on rated capacity at 8,760 hours/year.

*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

**Appendix A: Emission Calculations
Summary**

Company Name: Kamic Corporation
Address City IN Zip: 6345 South Inwood Drive, Columbus IN 47201
Permit Number: 005-31197-00082
Plt ID: 005-00082
Reviewer: Sarah Street
Date: 12/2/2011

Operation	Material Used	Usage Rate (gal/hr)	Percent VOC	Density	VOC (lbs/hr)	VOC (tons/yr)
Burnishing and CNC Lathes*	Kut Eze	0.52	0%	7.506	0.00	0.00
Centerless Grinding	Yumate SC822K	0.11	26%	8.59	0.25	1.08
Finishing	Miller X-Rust	0.25	68%	6.84	1.16	5.09
Total:					1.41	6.17

Methodology

*4 ball burnishers assumed .04 gal/hr as well

**Appendix A: Emission Calculations
Summary**

Company Name: Kamic Corporation
Address City IN Zip: 6345 South Inwood Drive, Columbus IN 47201
Permit Number: 005-31197-00082
Pit ID: 005-00082
Reviewer: Sarah Street
Date: 12/2/2011

Operation	Usage Rate (gal/wk)	Usage Rate (gal/hr)	Density	VOC Weight %*	Percent Flash Off	VOC Emissions (lbs/hr)	VOC Emissions (tons/yr)
Parts Washing 1	2.5	0.015	8.924	39%	100%	0.052	0.227
Parts Washing 2	2.5	0.015	8.924	39%	100%	0.052	0.227
Total:						0.104	0.454

*Yumage W-175 used in parts washers, Triethanolamide the solvent, not a HAP.

**Appendix A: Emission Calculations
Carburizing & Carbonitriding**

Company Name: Kamic Corporation
Address City IN Zip: 6345 South Inwood Drive, Columbus IN 47201
Permit Number: 005-31197-00082
Plt ID: 005-00082
Reviewer: Sarah Street
Date: 12/2/2011

Endogas Process Emissions

Source	Gas Flow (m ³ /hr)	Mol CO/Mol Gas	ft ³ /m ³	CO Density lb/ft ³	CO loading (lb/hr)	CO Emissions (lb/hr)	CO Emissions (tons/yr)	**Heat Value CO (MMBtu/hr)
Endothermic Gas Generator #1	38	0.205	35.31	0.074	20.35	0.41	1.78	0.0018
Endothermic Gas Generator #2	76	0.205	35.31	0.074	40.71	0.81	3.57	0.0035
Total:							5.35	0.0053

Other Combustion Gases	Emission Factors (lb/MMBtu)*	Emissions (lbs/hr)	(tons/yr)
Total Hydrocarbons	0.14	0.0007	0.0032
Nitrogen Oxide	0.068	0.0004	0.0016

Methodology:

98% of Carbon Consumed by Process, remaining Carbon as CO flared off at end of cycle

*AP-42 Table 13-5-1 Emission Factors for Flare Operations used for additional combustion byproducts

Fuel Gas	**Gross heating and net heating values for some common gases can be found in the table below:			
	(kcal/kg)		(kcal/nm ³) ⁻¹	
	Gross Heating Values	Net Heating Values	Gross Heating Values	Net Heating Values
Hydrogen	33,889	28,555	3,050	2,570
Methane	13,284	11,946	9,530	8,570
Ethane	12,400	11,350	16,700	15,300
Ethylene	12,020	11,270	15,100	14,200
Natural Gas	~12,000	~11,000	~9,000	~8,000
Propane	12,030	11,080	24,200	22,250
Propylene	11,700	10,940	22,400	20,900
n-Butane	11,830	10,930	31,900	29,400
Iso-Butane	11,810	10,900	31,700	29,200
Butylene-1	11,580	10,830	29,900	27,900
Iso-Pentane (liquid)	11,600	10,730		
LPG (average)	11,920	10,997	28,000	25,775
Acetylene	11,932	11,514	13,980	13,490
Carbon Monoxide	2,411	2,411	3,014	3,014

1 kJ/kg = 1 J/g = 0.4299 Btu/lb_m = 0.23884 kcal/kg

(.4299/23884)Btu/lb = 1 kcal/kg = 1.799 (Btu/lb)/(kcal/kg)

2,411 kcal/kg = 4,339 Btu/lb

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Company Name: Kamic Corporation
Address City IN Zip: 6345 South Inwood Drive, Columbus IN 47201
Permit Number: 005-31197-00082
Plt ID: 005-00082
Reviewer: Sarah Street
Date: 12/2/2011

Unit	kWh	Heat Input Capacity (MMBtu/hr)
Parts washer (1997)	-	1.06
Parts washer (2011)	-	1.06
Natural Gas Fired HVAC	-	2.5
TOTAL	-	4.62

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
4.62	1000	40.5

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.0	0.2	0.2	0.0	2.0	0.1	1.7

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

PM2.5 emission factor is filterable and condensable PM2.5 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See following page for HAPs emissions calculations.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

HAPs Emissions

Company Name: Kamic Corporation

Address City IN Zip: 6345 South Inwood Drive, Columbus IN 47201

Permit Number: 005-31197-00082

Plt ID: 005-00082

Reviewer: Sarah Street

Date: 12/2/2011

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyd 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	4.249E-05	2.428E-05	1.518E-03	3.642E-02	6.880E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.012E-05	2.226E-05	2.833E-05	7.690E-06	4.249E-05

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

See following page for Greenhouse Gas calculations.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Greenhouse Gas Emissions

Company Name: Kamic Corporation
Address City IN Zip: 6345 South Inwood Drive, Columbus IN 47201
Permit Number: 005-31197-00082
Plt ID: 005-00082
Reviewer: Sarah Street
Date: 12/2/2011

	Greenhouse Gas		
Emission Factor in lb/MMcf	CO2 120,000	CH4 2.3	N2O 2.2
Potential Emission in tons/yr	2,428	0.0	0.0
Summed Potential Emissions in tons/yr	2,428		
CO2e Total in tons/yr	2,443		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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Indianapolis, Indiana 46204
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Toll Free (800) 451-6027
www.idem.IN.gov

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Ray Quiroz
Kamic Corp
6345 S Inwood Dr
Columbus, IN 47201

DATE: December 28, 2011

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Exemption
005-31197-00082

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

IDEM Staff	CDENNY 12/28/2011 Kamic Corp 005-31197-00082 (final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Ray Quiroz Kamic Corp 6345 S Inwood Dr Columbus IN 47201 (Source CAATS)										
2		Nobuharu Nakajima President Kamic Corp 6345 S Inwood Dr Columbus IN 47201 (RO CAATS)										
3		Columbus City Council and Mayors Office 123 Washington St Columbus IN 47201 (Local Official)										
4		Mr. Elbert Held 734 Hutchins Columbus IN 47201 (Affected Party)										
5		Mr. Boris Ladwig 333 2nd St Columbus IN 47201 (Affected Party)										
6		Eileen Booher 1316 Chestnut St. Columbus IN 47201 (Affected Party)										
7		Mr. Lcnfc 1039 Sycamore St Columbus IN 47201 (Affected Party)										
8		Bartholomew County Commissioners 440 Third Street Columbus IN 47202 (Local Official)										
9		Mr. Jean Terpstra 3210 Grove Pkwy Columbus IN 47203 (Affected Party)										
10		August Tindell 31 Reo Street Columbus IN 47201 (Affected Party)										
11		Terry Lowe 1039 W Jeffersons St Apt 3 Franklin IN 46131 (Affected Party)										
12		Mr. Charles Mitch 3210 Grove Parkway Columbus IN 47203 (Affected Party)										
13		Bartholomew County Health Department 440 3rd Street, Suite 303 Columbus IN 47201 (Health Department)										
14												
15												

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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